

Curriculum vitae – Geoffrey Compère

Personalialia

- Birth: June 21, 1980 in Schaerbeek, Belgium
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Education

- PhD in Science at the Université Libre de Bruxelles (ULB, Belgium), Oct. 2003 – Oct. 2007, PhD title: *Symmetries and conservation laws in Lagrangian gauge theories with applications to the mechanics of black holes and to gravity in three dimensions*. Advisor: Glenn Barnich.
- Civil Engineer in Applied Mathematics at the Université Catholique de Louvain (UCL, Belgium), September 1998 – June 2003, Master thesis: *Imperfections in Vertical Bridgman growth of cadmium zinc telluride monocrystal*. Advisor: Francois Dupret. La Plus Grande Distinction (94% average – First score among 220 newly-graduated)

Professional career

- Oct 2020 – Present: Senior FNRS Research Associate at ULB, Brussels, Belgium
- Oct 2012 – Sept 2020: FNRS Research Associate (Tenured) at ULB, Brussels, Belgium
- Jan 2013 – Jan 2014, Post-doctorate Researcher at Harvard University, USA. Funded by A. Strominger and G. Compère US NSF Grant 1205550.
- Oct 2010 – Sept 2012, Post-doctorate Researcher at the Institute of Theoretical Physics and KdV Institute for Mathematics at the University of Amsterdam (UvA), The Netherlands. Funded by K. Skenderis Dutch VICI Grant.
- Oct 2008 – Sept 2010, Post-doctorate Researcher at University of California at Santa Barbara (UCSB), USA. Funded by D. Marolf and G. Horowitz US NSF Grant PHY05-55669.
- Oct 2007 – Sept 2008, B.A.E.F. (Belgian American Educational Foundation) David and Alice van Buuren Fellow and Post-doctorate Researcher at UCSB, USA. Funded by David and Alice van Buuren through the BAEF Foundation.
- 2003 – 2007, F.N.R.S. (Fonds National de Recherche Scientifique) Research Fellow, Belgium.

Grants and Awards

- 2019. European Spatial Agency PRODEX Grant for the LISA mission
- 2018. Théophile de Donder Prize (Académie Royale de Belgique, triennial)
- 2013. European Research Council (ERC) Starting Grant (ERC StG 335146).
- 2012. US National Science Foundation Grant (NSF Grant 1205550)
- 2007. David and Alice van Buuren BAEF Fellowship Award

Institutional responsibilities, services and commissions of trust

- Chairman of the exam committee, admission committee and program committee (Jury) of the Masters in Physics at ULB from 2017 to present. Co-chairman in the period 2014-2017.
- Referee for Tenured positions at ULB (Chaires non-profilées), for the ERC Starting Grant Call 2019 (EU) and the FONDECYT Program (Chile).
- Full member of the [LISA consortium](#). Associate member of the [Gravitational Wave Centre](#);
- Management Committee member of the EU COST action “Gravitational waves, black holes and fundamental physics” (GWniverse) CA16104.
- Senior editor of [SciPost](#) and editor of [Particles](#). Guest editor of Classical and Quantum Gravity on the special issue “BMS symmetries in gravity”.
- Member of the PhD expert panel or guidance committee of 15 PhD’s.
- Referee for Physics Report, Physical Review Letters (PRL), Journal of High Energy Physics (JHEP), Physical Review D. (PRD), Classical and Quantum Gravity (CQG), Physical Letters B., Journal of Mathematical Physics, General Relativity and Gravitation, and Entropy.

Scientific track record

- All my publications can be found on [Inspire](#) except one article published during my Engineering Master’s which can be found on [Science Direct](#). In total, I am author of 72 citable papers of which 65 are published. They received a total of 3787 citations resulting in an Hirsch index $h = 35$ and an average of 53 citations per paper.
- I presented more than 70 talks in international conferences, workshops and institutions.
- Advisor of 5 ongoing and 2 completed PhD’s, and, 1 ongoing and 5 completed Master’s theses.

Invited Speaker at International Conferences and Workshops

- 2021
- Spanish-Portuguese Relativity Meeting (Portugal)
 - Flat Asymptotia Workshop, Okinawa (Japan)
 - Celestial Holography Workshop, Princeton (US)

- 2020 • 4th Int. Conference on Holography, String Theory and Discrete Approach (Vietnam)
 - Black-Hole Microstructure at Saclay (France)
- 2019 • Black Hole Initiative Conference at Harvard (US)
 - CERN Quantum gravity and quantum information workshop (Switzerland)
 - Athens 2019: Gravitational Waves, Black Holes and Fundamental Physics (Greece)
- 2018 • Peyresq workshop (France);
 - COST Conference “Gravitational waves, black holes and fundamental physics” (Malta)
- 2017 • Karl Schwarzschild Meeting 2017, Frankfurt (Germany), “Gravity and the Gauge/Gravity correspondence”;
 - Hebrew University of Jerusalem (Israël): “Recent Developments in General Relativity” Conference;
 - Milano (Italy) “The String Theory Universe” Conference;
- 2016 • CECS, Valdivia (Chile): “Quantum Mechanics of Fundamental Systems X: Black Hole Entropy, 43 Years Later” Conference;
 - Beijing (China), “Strings 2016” Conference;
 - Stockholm (Sweden): Nordita program on “Black Holes and Emergent Spacetime”;
 - Niels Bohr Institute, Copenhagen (Denemark): “Current Themes in Holography” workshop;
 - International Centre for Theoretical Physics (ICTP), Trieste (Italy): Workshop on “Topics in 3D Gravity”;
- 2015 • Marcel Grossman meeting MG14, Rome (Italy);
- 2006-2014 16 other conferences, workshops and PhD schools

External Funding

- co-PI of ESA PRODEX Experiment Arrangement for the LISA mission, 2019-2024 (€350,000/5 years)
- PI of EU FP8 ERC Starting Grant 335146 “Holography for Realistic Black Holes and Cosmologies”, 2014-2019 at ULB (€1,000,000/5 years).
- co-PI of US NSF Grant Award 1205550 with Pr. Strominger, Harvard (USA), as PI. “Classical and Quantum Aspects of Black Holes, Horizons and Asymptotic Symmetries”. Started on July 1st 2012 (\$210,000/3 years).
- B.A.E.F. (Belgian American Educational Foundation) David and Alice van Buuren Fellowship awarded in 2007 (\$ 30,000).

Teaching

- *Lectures on Gravitational Waves* (Amsterdam-Brussels-Paris-Geneva PhD School, ULB) (2020); (Vienna PhD school) (2019)
- *IR structure of gravity* (Gravity@Prague PhD school) (2018)
- *Advanced General Relativity* (Amsterdam-Brussels-Paris-Geneva PhD School, ULB) (2017, 2018) and (Gravity@Prague PhD school) (2018)

- *Lie Algebras, Representations and Applications to Physics* (first Master year physics, ULB) (2015-present)
- *Analytical Mechanics (exercices)* (second Bachelor year physics and mathematics, ULB) (2012-2013)
- *String Theory (exercices)* (second Master year physics, UvA, The Netherlands) (2010-2011)
- *General Relativity (exercices)* (third year Bachelor physics, ULB) (2005-2007)
- *Group and representation theory (exercices)* (third year Bachelor physics, ULB) (2005-2007)

Organization of scientific meetings

- “Asymptotic structure of Spacetime”, 23-24 Nov 2020, Brussels, Belgium
- “Strings 2019”, 9-13 July 2019, Brussels, Belgium
- Solvay workshop on “Infrared Physics: Asymptotic & BMS symmetry, soft theorems, memory, information paradox and all that”, 16-18 May 2018.
- 3 ERC/Solvay workshops on Holography for Black Holes and Cosmology (ULB). First edition: 14-18 April 2014; Second edition: 9-13 May 2016; Third edition: 22-25 May 2018.
- Belgian-Dutch Holography DITP meeting (ULB), 22 Jan 2016; 19 Jan 2018.
- 24th Pacific Coast Gravity meeting (Santa Barbara USA), March 2008
- 2nd and 3rd Modave Summer School in Mathematical Physics, Modave (Belgium), 2006-2007

Published algorithmic package

- I developed the package [SurfaceCharges](#) for Mathematica (compatible with v11.0). It is the first package which allows to compute surface charges in gravitation coupled to matter fields.

Outreach activities

- TV and radio interviews (RTL TV; La Première national radio ; [ULB Campus radio](#))
- Interviews to Belgian press ([La Libre](#), [Le Soir](#), [Sud presse](#), [Téléoustique](#))
- Press releases (e.g. [12 mois 12 experts](#))
- Public talks (e.g. [TEDxYouth talk](#); [Colloquium on Gravitational Waves](#); [Pint of Science in Brussels](#))
- Contributor to scientific blogs (on [BMS symmetries](#) and [the Kerr/CFT correspondence](#))